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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,760	08/01/2003	Jeffrey Thramann	49272.830001.US3	5040
26582	7590	08/25/2005		
HOLLAND & HART, LLP 555 17TH STREET, SUITE 3200 DENVER, CO 80201			EXAMINER STOKES, CANDICE CAPRI	
			ART UNIT 3732	PAPER NUMBER

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/632,760	Applicant(s) THRAMANN ET AL.	
	Examiner Candice C. Stokes	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/04/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,22,25-41 and 50-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21,22 and 25-29 is/are allowed.
- 6) ☒ Claim(s) 30-41 and 50-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1) Claims 30-41 and 50-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terrizzi et al (USPN 5,407,312) in view of Lyon (USPN 2,409,638). Terrizzi et al disclose a back out prevention device comprising a screw 10 with head 12 and shank 14 and a bonding material. Lyon teaches bushing 5. Screw 10 in combination with bushing 5 is capable of being threaded into a vertebral body. "More particularly, in prior art efforts to optimize the relationship of a fastener relative to a medium intended to be fastened, thereby, it is typical to provide, either into a recess of such medium or by physical adhesion onto the shank or head of the fastener itself, one or more types of solid or semi-solid phase pressure responsive function facilitating materials such as bonding agents, sealing agents such as caulking compounds, friction reduction agents such as lubricants, resilience-providing agents and combinations thereof" (col. 1, lines 15-24). Further Terrizzi et al discloses "concentric channel 22 may simply be filled with a solidified caulking compound which, responsive to the application of pressure thereupon during the process of tightening head 12 into the medium to be fastened, an effective change of state, from solid to that of a putty-or gel-like state will occur, thereby depositing an effective quantity of sealing agent to the fastener-medium interface" (col. 2, lines 45-52). It would have been obvious to one having ordinary skill in the art at the time the invention was

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made to incorporate the bushing as taught by Lyon into the screw and sealing agent disclosed by Terrizzi et al in order to more securely lock the screw to the plate and prevent the screw from backing out once fastened. As to Claims 50-55, the bond that is formed is mechanical, frictional, and a chemical bond; chemically because it reacts to heat and pressure, providing a frictional and mechanical bond.

Allowable Subject Matter

Claims 21-23 and 25-29 are allowed.

Response to Arguments

Applicant's arguments filed 05/04/05 have been fully considered but they are not persuasive. Applicant asserts "amended claim 30 is patentably distinct from Terrizzi because amended claim 30 provides a bonding agent on the screw and the bushing. Lyon does not cure the defect of Terrizzi. Lyon is silent regarding agents, and the Examiner simply uses Lyon to disclose that screws can be used with bushings. Moreover, neither reference discloses locating the agent in a location determined prior to threading. To the extent the Examiner believes Terrizzi discloses a predetermined location (which would be either the top or the entire shank), Terrizzi is still silent regarding locating an agent on the bushing prior to threading the screw. Thus, it is respectfully submitted that amended claim 30 is patentably distinct from Terrizzi and Lyon either alone or in any reasonable combination thereof" (see top of pg. 8). The Examiner submits that the amended claim 30 merely provides that the bonding agent is applied to the screw prior to threading. Although Terrizzi is silent to this point it is inherently applied prior to threading since Terrizzi

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teaches that the bonding agent may be applied either to the recess or the shank of the screw.

Terrizzi further teaches that the bonding agent is “responsive to the application pressure thereupon during the process of tightening the head 12” the bonding agent becomes solidified (col.3, lines 46-48). Further, Terrizzi also teaches a bushing or washer may be provided.

Therefore, claims 30-41 remain rejected. Claims 50-55 are newly rejected.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Candice C. Stokes whose telephone number is (571) 272-4714. The examiner can normally be reached on 8:00am - 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Candice C. Stokes


Cary E. O'Connor
Primary Examiner